EU-TYPE EXAMINATION CERTIFICATE

[1]

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

[3] EU-type Examination Certificate number:

IMQ 08 ATEX 006 X

[4]	PRODUCT:	PRESSURIZED CABINETS
	TYPE/SERIES:	QCP *. * * * QCP 1.2 ÷ 3.00 and QCP 1.2 W ÷ 3.00 W
[5]	MANUFACTURER:	ELETTROMECCANICA B.T.B. S.r.l.
[6]	ADDRESS:	VIA DELLA TECNICA, 6 - I-52025 MONTEVARCHI (AR) ITALIA
	APPLICANT:	ELETTROMECCANICA B.T.B. S.r.l. VIA DELLA TECNICA, 6 - I-52025 MONTEVARCHI (AR) ITALIA

[7] This equipment and any acceptable variation there to are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No.:

AT16-0001726-01

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN 60079-0:2012 + A11:2013; EN 60079-1:2007; EN 60079-2:2007; EN 60079-11:2012;

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2(1)G	**Ex pxb db [ia IIB/ IIC] ia IIB/IIC T3, T4,** or
II 2(2)G	**Ex pxb db [ib IIB/IIC] ia IIB/IIC T3, T4,** or
II 2G	**Ex pxb db ia IIB/IIC T3, T4**

THIS DOCUMENT IS COMPOSED OF 4 PAGES INCLUDING 1 ANNEX.

IMQ

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IMQ 08 ATEX 006 X

[13] # ANNEX

[14] EU-type Examination Certificate number: **IMQ 08 ATEX 006 X**

[15] **DESCRIPTION OF PRODUCT:**

Electrical cabinet of device and control protected by pressurized apparatus. Pressurization unit contains a flameproof enclosure (Ex d according EN 60079-1) fitted to intrinsic safety elements (Ex ia/ib according to EN 60079-11) when located in hazardous area, permitting pressurization by leakage compensation.
The cabinet contains a set of equipments specified by descriptive documents, in particular one or more electrical equipments of certified type and added cooling system with tube heat exchanger.
The cabinet is equipped with safety device which form safety related part of a control system. The safety and integrity of the control system is consistent with an evaluation in single fault.
The evaluation has been performed following the requirements of EN 50495:2008 standard.

[15.1] **MODELS/SERIES IDENTIFICATION:**

- **QCP 1.20** (standard ambient temperature range type) **QCP 1.20 W** (extended ambient temperature range type)
- **QCP 1.60** " **QCP 1.60 W** "
- **QCP 2.00** " **QCP 2.00 W** "
- **QCP 2.50** " **QCP 2.50 W** "
- **QCP 3.00** " **QCP 3.00 W** "

[15.2] **RATINGS:**

	QCP 1.20 QCP 1.20 W	QCP 1.60 QCP 1.60 W	QCP 2.00 QCP 2.00 W	QCP 2.50 QCP 2.50 W	QCP 3.00 QCP 3.00 W
Free internal volume	0,8 m^3	1 m^3	1,3 m^3	1,65 m^3	2 m^3
Minimal purging flow rate of protective gas	34 Nm^3/h	34 Nm^3/h	41 Nm^3/h	46 Nm^3/h	46 Nm^3/h
Minimal purging duration	12 min	15 min	22 min	25 min	25 min
Minimal overpressure	80 Pa	80 Pa	80 Pa	80 Pa	80 Pa
Maximal overpressure	1500 Pa	1500 Pa	1500 Pa	1500 Pa	1500 Pa
Maximal leakage rate	2,2 Nm^3/h	2,2 Nm^3/h	2,8 Nm^3/h	3,4 Nm^3/h	3,4 Nm^3/h
Control point of overpressure	Valve				

[15.3] **SAFETY RATINGS:**

- U_{max}: 1000V
- I_{max} : 4000A
- P_{max} : 2000 kVA
- Frequency: 50/60 Hz

[15.4] **AMBIENT TEMPERATURE AND TEMPERATURE CLASSES:**

The assemblies QCP 1.20 ÷ 3.00 have temperature class T3 or T4 with T_{amb}: -20 °C ÷ 60 °C.

The assemblies QCP 1.20 W ÷ 3.00 W have temperature class T3 or T4 with T_{amb}: -40 °C ÷ 60 °C

[15.5] **DEGREE OF PROTECTION (IP CODE):**

IP65

[15.6] **WARNINGS:**

- Warning – **"Do not open when energized See instructions before opening"**

If protective gas is not air (inert gas):

- Warning – **"Caution, suffocation risk"**

On the automation compartment including battery, when installed in pressurized cabinet

- Warning – **"Do not open in explosive atmosphere"**

[16] **REPORT:** AT16-0001726-01

[16.1] **ROUTINE (FACTORY) TESTS:**

The manufacturer must carry out the routine test prescribed at clause 27 of the EN 60079-0 and at clause 17 of the EN 60079-2.

[16.2] **CONFORMITY WITH THE DOCUMENTATION:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.
Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **INSTALLATION CONDITIONS:**

- Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.
  Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals request special considerations and additional measures by the side of installer or user.
  These should be specified to the manufacturer by the user; it is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

[17] **SPECIAL CONDITION OF USE (X):**

- User shall take all convenient precautions before using by-pass system eventually included in the pressurization module;
- All electrical elements associated with this equipment and contributing to his convenient using and safety shall, when located in hazardous area, must be protected by one of well known type of protection, certified and suitable for considered using;
- When equipment is fitting with heating resistances these shall be energized only when equipment will be de-energized.

[18] **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS:**

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].
This Certificate does not cover hazards coming from environmental conditions different from those clearly and precisely indicated in clause 1 of EN 60079-0.
ESHR 1.2.7: According Annex VIII of the Directive
ESHR 1.4: Not verified.
ESHR 1.5: Not applied.
ESHR 3: Not applied.
In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
N/A: additional Requirements for the products have not been considered

[19] **DESCRIPTIVE DOCUMENTS:**

DL- AT16-0001726-01, rev. 0, dated 2016-10-14, 90 pages.

[20] **CERTIFICATION VALIDITY CONDITIONS:**

- The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.
- The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per [19]. One copy of the mentioned documentation is kept in IMQ file.

[21] In accordance with Article 41 of Directive 2014/34/EU, Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. New issues of such certificates may continue to bear the original certificate number issued prior to 20 April 2016.

[22] **VARIATIONS:**

[22.1] **MAY 2011:** - Modified ambient temperature: -20 °C ÷ 60 °C.

[22.2] **DECEMBER 2012:** - Added cooling system with tube heat exchanger which is not influential for safety purposes;
- Standard update.

[22.3] **MARCH 2016:** - Standard update.

[22.4] **NOVEMBER 2016:** - Introduced new type **QCP *.** W** with ambient temperature range of: -40 °C ÷ 60 °C.